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INCREASE IN DCCR GRANTS MAY NOT BE POSSIBLE WITHOUT DECREASING QUALITY, COMMITTEE TOLD

Doubts that a substantial increase in cancer control money could be made to support grants, and solid approval of the controversial Community Based Cancer Control Program were expressed by members of the Div. of Cancer Control & Rehabilitation Advisory Committee at its meeting this month. (Continued to page 2)

In Brief

MAGNUSON DELAYS ACTION ON APPROPRIATIONS BILL; NO VOTE SEEN NOW UNTIL SEPTEMBER

HEW APPROPRIATIONS bill is stalled in the Senate, which probably will not act on the measure now until after the August recess. The full Senate Appropriations Committee has not taken any action on the HEW Subcommittee's recommendations and does not have any meeting scheduled to consider them. The subcommittee approved an FY 1979 appropriation of $950 million for NCI, not including an estimated $20 million for training programs. It appears that canny committee Chairman Warren Magnuson is deliberately holding things up to give Congress a chance to recover from the Proposition 13 panic. When the House acted on the HEW money bill immediately after the California vote on the property tax cutting initiative, it approved an across the board 2% cut. Magnuson's subcommittee rejected the cut in its markup of the bill, but he was not confident he could beat down an effort to impose it when the bill reaches the Senate floor. It now appears certain there will be another fight over funding of abortions between the House and Senate, which probably will hold up final approval until well into the new fiscal year. . . . **PRESIDENT'S CANCER PANEL** meeting scheduled this week was canceled when two members—Paul Marks and Elizabeth Miller—were out of the country, and Chairman Benno Schmidt was ill. President Carter still has not acted to replace Schmidt, whose term expired in February. . . . **COMPREHENSIVE CANCER** center in Philadelphia is a joint effort of the Fox Chase Cancer Center and the Univ. of Pennsylvania Cancer Center. The official name is Fox Chase-Univ. of Pennsylvania Comprehensive Cancer Center, but references to the comprehensive center as "Fox Chase", leaving out the university, continue to creep into print much to the chagrin of staff members of both centers. Latest was in ***The Cancer Letter*** July 14, in the chart listing the order in which comprehensive centers were ranked by combined priority scores awarded by NCI-NCAB reviewers. . . . **CHARLES DAHLE**, director of public information for the California ACS Division, has been named assistant vice president for media relations of the national ACS. He replaces Joseph Clark, who has retired after 17 years in that job. . . . **DAVID VALERIO**, senior vice president of Hazleton Laboraties America Inc., has been elected president of Hazleton Research Animals Inc.

COMMUNITY BASED CONTROL PROGRAMS TO CONTINUE, WILL NOT BE EXPANDED

(Continued from page 1)

DCCR started five years ago with about 95% of its extramural budget allocated to contracts, 5% for grants. Unlike NCI's other divisions, DCCR always has been permitted use of the grant mechanism; the other divisions gained that privilege only this year with Director Arthur Upton's reorganization efforts.

The percentage of DCCR's grant budget increased to about 30% this year, before the changes made by Upton aimed at moving as much contract research as possible into grants. DCCR now is under considerable pressure to place an even greater emphasis on grants.

That may not be easy. "I am seriously doubtful that we would be able to do more unless grants change in quality and nature," commented Timothy Talbot, who has been chairman of the Cancer Control Grants Review Committee.

"One problem is that we don't get grantsmen," said DCCR Director Diane Fink. "But we have found some nuggets out there, thanks to Tim and his committee."

DCCR has used the "request for application" (RFA) method to stimulate grant applications in particular areas, many of which have been aimed at community institutions rather than the more sophisticated (as far as grantsmanship is concerned) universities and other research institutions. As a result, many of the grant applications have been found inadequate and sometimes naive by the review committee.

Nevertheless, "worthwhile priority grants are being funded," said DCCR Advisory Committee Chairman William Shingleton.

"Over the last four years we have tried to fund all grants at a good priority," Fink said. "We have a record of 80% funding, the best in NCI (which has funded traditional research grants from 30-50% during the same period). This is largely the result of Talbot's committee. We use contracts to stimulate interest in an area. Rehabilitation started with contracts and now interest has developed among investigators who are submitting grant applications. Terminal care and hospice are other examples.

"I suggest more emphasis on the RFA," Fink continued. "It gives broad latitude in investigator initiative."

"It is a set of instructions. The odds for better grants should improve," Talbot agreed.

"The RFA is a more suitable way to allow local initiatives to occur," said committee member Joseph Painter. "But if the quality of grants is not up to par, what can we do to get them up? The other side of the coin is for the review committee to understand the problems of community involvement."

"The RFA should be the mechanism of choice," Shingleton said.

"RFA plus investigator initiated grants," Fink added.

This could have broad implications for an expanded Community Oncology Program, if an expansion is implemented (***The Cancer Letter***, July 21). DCCR staff has felt strongly that a new COP effort should be supported through contracts, as is the existing one. But Fink told ***The Cancer Letter*** that "the RFA rather than RFP (contracts) may be the way to go, using comprehensive and other centers that have the capability."

The existing COP, aimed at upgrading the quality of cancer care in community hospitals, specifically excluded comprehensive centers from competing for the contract awards although it has encouraged the participants to develop relationships with centers.

Six CBCCP implementation contracts have been awarded—New Mexico Cancer Control Program, Metropolitan Detroit Cancer Control Program, Long Island Cancer Control Program, and Hawaii Community Based Cancer Control Program.

"This is a most controversial program," Shingleton said. "There has been dispute over its validity. New Mexico and Detroit have gone through merit review. There is still some question how these programs are going. Thus we reopen the issue."

DCCR staff member Marcia Litwak pointed out that the program was established to test the hypothesis that a full, coordinated intervention by a variety of community resources would have a bigger impact than a segmented approach.

Litwak said there have been "many organizational problems. Start up is slower than with other projects. More planning is required, plus subcontract review. Dealing with local governments is required. Getting and training oncology nurses is a problem. Anti-smoking programs are hard to get going."

Donald Hayes, member of the merit review committee, said that the gist of merit review is that they are heading in the right direction but it is too early now to judge.

Evaluation is one of the major problems. DCCR staff member Wadie Elaimy said, "We cannot measure changes in mortality. We are developing base line data, looking for changes and trends as we are going along. We cannot measure over such a short period of time."

Committee member Louis Leone said, "In Rhode Island the emphasis is on quality of survival."

Committee member Helen Burnside said, "In Hawaii they are still having organizational infighting at this stage."

Upton, who was present for part of the two day meeting, suggested that a re-evaluation of prevention may be needed. "We may need to wait decades," he said. "Are smoking programs getting into school systems? Are we trying to see if the number of high school seniors who smoke is up or down?"

"We are doing just that," Elaimy answered.

Painter and committee member Stanley Peck pressed for details on how the programs will be continued when NCI funding is ended after five years. Shingleton asked, "If they are successful, where would the money come from to start new ones based on the successful demonstration models?"

Fink pointed out that NCI's responsibility is based on congressional intent. "Ours is a limited demonstration program. We are not in business to replicate these."

"The responsibility of the DCCR program is to demonstrate and make information available," said committee member Oliver Beahrs. "NCI is not a service organization."

No suggestions were offered as to funding sources for CBCCP efforts in other communities and to continue the six after five years. One answer might be found in the growing interest of state legislatures in supporting cancer control programs.

Elaimy is leaving NCI at the end of this month to head up one such program, as director of the Idaho Cancer Control Program. That program is supported entirely by the Idaho legislature. Elaimy also will be executive director of the Idaho Health Facilities Authority.

Summing up the committee's discussion on CBCCP, Shingleton said, "The consensus is that this is a good program. It has problems. It should be continued but not expanded."

NEW CREG ANNOUNCEMENT ON COMBINED RADIO-CHEMOTHERAPY STUDY AVAILABLE

The new Cancer Research Emphasis Grant announcement for the expansion of experimental combined modality studies using radiotherapy and chemotherapy is now available (*The Cancer Letter,* July 21).

The Div. of Cancer Treatment will support research studies on the preclinical evaluation of combinations involving chemotherapy and radiotherapy. Systems to be used may be in vitro or in vivo or a cimbination thereof. The purpose of these studies will be either to uncover a potentially positive interaction between radiotherapy and drugs drawn from a selected group of antitumor agents or to elucidate how single drugs and radiotherapy might interact optimally with the goal of aiding investigators who might be attempting to combine them clinically.

DCT currently has investigational studies of some type in progress with over 100 anticancer drugs, all of which either have proven or potential clinical anticancer activity. It is desired to investigate these drugs in some manner in combination with radiation to uncover a potential positive interaction with the latter modality. Drugs exhibiting this potential will be considered for further, more detailed preclinical investigation to confirm the positive interaction. Ultimately, they will be considered for clinical evaluation with x-ray in an attempt to validate the predictions of the experimental model.

There are several drugs with proven cytotoxic activity against a wide range of radioresponsive tumors. Examples of such drugs are cytoxan, adriamycin, methotrexate, and 5-FU. These already have been tested to some extent with radiotherapy, without positive results. Recognizing the manifold variables of schedule, sequence, and ratio, there are at least 300 ways a single drug could be combined with radiotherapy in the treatment of any individual tumor type. Given the massive number of possible therapeutic combinations, it is clear that only a tiny fraction can be actually evaluated in patients. It is, therefore, desirable to develop new systems and refine existing ones that might aid the clinician in selecting a potentially optimum sequence, schedule, and ratio of drugs and x-ray.

The applicant will describe in depth his experimental approach to the problem of combining drugs and x ray and give explicit details about the systems to be used (in vitro, in vivo, or both).

As an example, one of the approaches may be in vitro testing with cultured mammalian cells which could permit the assessment of the following drug-radiation properties: (a) the age-response function of a drug in respect to that of radiation, (b) the effect on cell cycle progression of a radiation and/or a drug exposure, and (c) the presence or absence of damage interaction due to radiation and a drug. With the foregoing in mind, an in vitro testing system could be structured as follows:

Asynchronous cells—Three states of asynchronous populations could be considered: (a) log phase, (b) plateau or stationary phase, and (c) spheroidal growth.

Synchronous cells—Here, the principal approach would be to delineate cell-cycle dependencies or age-response functions. The same combinations of treatments proposed for asynchronous cells should be pursued with the main modification being emphasis on single or combined doses followed through the cycle.

Intracellular modes of action—Studies at this level of inquiry would be less predictable, but no less important when required, than those preceding. To explain qualitative and perhaps quantitative differences among cell lines, the possible areas of inquiry include drug transport, effects on macromolecular synthetic pathways, the stimulation or inhibition of enzymatic activity, and damage/repair observations involving nucleic acids.

If an in vivo system is to be used, it should be described in detail, including its origin, development, reproducibility, kinetics, and response to therapies evaluated to date. For each normal or tumor system a quantitative end point should be reported. Examples of such end points are TCD_{50} estimates for single and multifraction doses, survival of normal or malignant clonogenic cells assayed in vivo and in

vitro, regression-regrowth curves, survival rates and/or times, etc. When possible, a differential between normal and neoplastic tissue response should be determined. Correlation of in vivo and in vitro responses would also be advantageous.

Studies should be directed at obtaining and understanding of how the two modalities (drug + x-ray) are combining. Studies can also be made of the time, degree, and dose dependence of recruitment of noncycling cells by radiation to help in the determination of optimal times for the administration of cycle-active chemotherapeutic agents. These studies should be undertaken with appropriate tumor systems and with selected normal cells.

This is a readvertisement of the DCT-3 CREG originally announced in 1975. Those five grantees funded under the original CREG for five years are not eligible to compete for the new awards; the four grantees funded for three years are eligible to compete for the additional three years. Those with five year awards will be extended administratively for one year, bringing the entire program to a close at the end of six years.

Applicants should propose an individual project. Applicants may elaborate on the purposes, objectives, rationale, and significance stated in this announcement and must complete portions of the application pertaining to procedural details, the investigator's related experience, facilities, available budgets, and biographical information for key professional personnel. It is anticipated that the project period will not exceed three years. The level of effort per year will approximate two to three professional man-years and two to three technician man-years.

Use the standard grant application form PHS 398. In both the covering letter and at the top of the space provided for an abstract on page 2 of the application, identify this CREG announcement by its title and the number DCT-3. Mail the application and letter to Div. of Research Grants, NIH, Bethesda, Md. 20014. Form PHS 398 may be requested from DRG.

Applications received on or before Nov. 1, 1978, will be processed for study section review in March 1979.

BUENOS AIRES GROUP DENIES CHARGES ARGENTINA PERSECUTES SCIENTISTS

The National Academy of Medicine of Buenos Aires has denied charges that the government of Argentina has violated the human rights of scientists in that country, as charged by some U.S. scientists who are boycotting the XIIth International Cancer Congress in Buenos Aires in October.

In a letter to the American Cancer Society, Jose Rivarola, president of the Buenos Aires Academy, said:

"The National Academy of Medicine of Buenos Aires, a body of 35 academicians elected for their indisputable merits among the best in the country, constitutes the highest medical authority in Argentina.

"The academy is troubled by the false and malicious reports spread abroad by the press misrepresenting the social situation in our country. According to the rumours so insidiously started, it would be unadvisable to attend the International Congress of Cancer, to be held in Buenos Aires, because of the general climate of public insecurity, the breaking of the laws of human rights, the persecutions to scientists, etc.

"In the presence of this pernicious propaganda, against our country, the academy finds it is its duty to inform the scientific community that you represent, about the following facts:

"1) Niether the members of this academy nor the scientific, technical or auxiliary staff that constitute its institutes (more than 200 persons) have ever been injured on their personal freedom or on their professional activities by the authorities or by isolated individuals.

"2) During the latter years, the scientific activities of this academy and its institutes, have received the government's total support without any compulsion or compromise.

"3) The climate of public security has substantially improved, and the kidnapping of personalities or functionaires formerly performed by the terrorists has ceased. We can affirm now, iwthout distorting the truth, that Buenos Aires, as all the Argentine cities, is as safe as any European or American big city.

"4) At present, the universities and research institutes are places of quiet and fruitful work, in opposition to the agitation, the activism and the persecutions to professors and scientists that were so frequent before March 1976."

ADVISORY GROUP, OTHER CANCER MEETINGS FOR AUGUST, SEPTEMBER

9th International Conference on Electron Microscopy—Aug. 1-9, Toronto.

Diagnostic Research Advisory Group—Aug. 2, NIH Bldg 31 Room 10, open 11 a.m.—adjournment.

Developmental Therapeutics Committee—Aug. 3, Blair Room 110, open 9—9:30 a.m.

NCI Laetrile Retrospective Analysis Evaluation Committee—Aug. 8-10, Bethesda Holiday Inn, open Aug. 8 9—9:15 a.m.

Virus Cancer Program Scientific Review Committee—Aug. 14-15, Landow Room 4C18, open Aug. 14, 9—9:30 a.m.

President's Cancer Panel—Aug. 22, NIH Bldg 31 Room 7, 9:30 a.m., open.

General Oncology—Aug. 25, Roswell Park continuing education in oncology. Contact Claudia Lee.

7th International Tutorial on Clinical Oncology—Aug. 26-Sept. 3, Vienna.

2nd European Council on Smoking and Society—Aug. 28-31, Rotterdam.

International Conference on Cell Differentiation & Neoplasia—Aug. 28-Sept. 1, Minneapolis.

Clearinghouse on Environmental Carcinogens Chemical Selection Subgroup—Aug. 29, NIH Bldg 31 Room 6, 9 a.m., open.
Clearinghouse Experimental Design Subgroup—Aug. 30, NIH Bldg 31, Room 6, 9 a.m., open.
Clearinghouse Executive Subgroup—Aug. 30, NIH Bldg 31 Room 7, 7 p.m., open.
4th International Congress for Virology—Aug. 30-Sept. 6, The Hague.
Cleairnghouse Data Evaluation/Risk Assessment Subgroup—Aug. 31, NIH Bldg 31 Room 6, 9 a.m., open.
Prostatic Cancer Review Committee—Sept. 6, Roswell Park, 8:30 a.m., open.
NCI-EORTC Symposium on New Drugs in Cancer Therapy—Sept. 7-8, Brussells.
Large Bowel Cancer Review Committee—Sept. 7-8, Houston Prudential Bldg., open Sept. 7, 7:30 p.m.—10 p.m.
New Leads in Cancer Therapeutics—Sept. 8, Roswell Park continuing education in oncology.
National Conference on Care of the Child with Cancer—Sept. 11-13, Sheraton Boston Hotel.
Cancer & Nutrition Scientific Review Committee—Sept. 11, NIH Bldg 31 Room 8, open 8:30—9 a.m.
Biometry & Epidemiology Contract Review Committee—Sept. 11-13, Landow 4C19, open Sept. 11, 8 p.m.—11 p.m.
Clinical Oncology Study Course—Sept. 12-16, London.
National Capital Area Branch of the American Assn. for Lab Animal Science—Sept. 13-14, annual seminar, Hunt Valley Inn, Cockeysville, Md.
16th Annual Meeting of the Nuclear Medicine Society—Sept. 13-16, Madrid.
2nd International Conference of Medicine & Biology—Sept. 17-21, Washington D.C.
Virus Cancer Program Scientific Review Committee—Sept. 18, Landow 4C18, open 9—9:30 a.m.
State of the Art Conference on Lung Cancer Screening—Sept. 18-20, Sheraton Hotel, Reston, Va., 9 a.m.—5 p.m. Sept. 18 & 19; 9 a.m.—adjournment Sept. 20, all open.
National Cancer Advisory Board—Sept. 18-20, NIH Bldg 31 Room 6 (agenda and subcommittee meetings to be announced later).
NCI Conference on Cis Platinum & Testicular Cancer—Sept. 21-22, Washington D.C. Shoreham Americana Hotel. Contact Franco Muggia, NCI, Bldg 31 Room 6A17, Bethesda, Md. 20014; phone 301-496-6138.
5th UICC Training Course in Cancer Research—Sept. 21-Oct. 3, Sao Paulo, Brazil.

Bladder Cancer Review Committee—Sept. 21, Boston Logan Airport Hilton, open 8:30—9:30 a.m.
Workshop on Graduate Education in Pediatric Hematology-Oncology—Sept. 26-27, Bethesda Linden Hill Hotel, Terrace Room, open.
Cancer Research Manpower Review Committee—Sept. 27-28, NIH Bldg 31 Room 8, open Sept. 28, 9—9:30 a.m.
Manpower Review Committee Subcommittee on Cancer Etiology & Prevention—Sept. 27, NIH Bldg 31 Room 4, closed.
XIIth International Cancer Congress—Oct. 5-11, Buenos Aires.
National Hospice Organization Annual Meeting & Symposium—Oct. 5-6, Washington D.C. Shoreham American.
Cancer Update—Symposium for Nurses & Other Health Professionals—Oct. 11-13, Birmingham, sponsored by ACS, Univ. of Alabama School of Nursing, Univ. of Alabama Comprehensive Cancer Center.
International Symposium on Pituitary Microadenomas—Oct. 12-14, Milan.
5th International Conference on Pneumoconioses—Oct. 28, Caracas.

RFPs AVAILABLE

Requests for proposal described here pertain to contracts planned for award by the National Cancer Institute, unless otherwise noted. Write to the Contracting Officer or Contract Specialist for copies of the RFP, citing the RFP number. Some listings will show the phone number of the Contract Specialist, who will respond to questions. Listings identify the respective sections of the Research Contracts Branch which are issuing the RFPs. Their addresses, all followed by NIH, Bethesda, Md. 20014, are:
Biology & Diagnosis Section — Landow Building
Viral Oncology & Field Studies Section — Landow Building
Control & Rehabilitation Section — Blair Building
Carcinogenesis Section — Blair Building
Treatment Section — Blair Building
Office of the Director Section — Blair Building
Deadline date shown for each listing is the final day for receipt of the completed proposal unless otherwise indicated.

RFP NCI-CP-VO-81043-66

Title: *Preparation of antisera to oncogenic or potentially oncogenic viruses*
Deadline: *Aug. 11*

NCI is interested in contracting with a laboratory or organization possessing the necessary knowledge, experience, facilities, equipment and personnel to produce, purify, characterize and distribute antisera to oncogenic or potentially oncogenic viruses, viral antigens, and to immunoglobulines of selected animal species.

This is a continuation of an ongoing project. Huntingdon Research Center Inc. is the incumbent. It is necessary that the contractor's principal investigator or staff have sufficient training and expertise to isolate, purify, and characterize the viral antigens and species immunoglobulins necessary for antisera productions. The types of immunogens to be used will include: murine, avian, feline and primate viruses, the initial preparations of which will be supplied by the government. The total volume of antisera to be produced on a yearly basis will approximate 130 liters.

Contracting Officer: Clyde Williams
Viral Oncology & Field Studies
301-496-1781

RFP NCI-CM-87196

Title: *Plateletpheresis services*
Deadline: *Approximately Aug. 21*

The Clinical Oncology Program, Div. of Cancer Treatment of NCI has a requirement for platelets needed to protect patients rendered thrombocytopenic by cancer therapy. This requirement will encompass the maintenance of a government provided facility and a program for plateletpheresis in a therapeutic quantity (4 unit plateletpheresis on 12 donors daily) from a donor pool of 20,000 to be maintained by the contractor.

The program director must have experience in blood component procurement and oepration of a large program devoted to this end at a supervisory level.

Contracting Officer: Stephen Gane
Cancer Treatment
301-427-8125

RFP NCI-CP-VO-81044-66

Title: *Large scale tissue culture virus production for cancer research*

Deadline: *Aug. 24*

NCI is interested in contracting with a laboratory or organization possessing the necessary knowledge, experience, facilities, equipment and personnel to produce, purify, characterize and distribute a variety of different RNA type-C and type-D retroviruses, the infectious and transforming strains of the DNA herpesvirus EBV, and selected tissue culture cell lines and associated products.

This is a continuation of an ongoing project. Pfizer Inc. is the incumbent. It is essential to the task that the contractor's principal investigator and staff have a demonstrated base of knowledge and experience in the areas of tumor viruses, replication of viruses in tissue culture, propagation of cells in tissue culture, concentration of viruses by various means, and quality control characterization.

Type of viruses to be produced may include: Mason-Pfizer mammary tumor virus (MPV) in the CMMT cell system; the baboon endogenous virus (BeV-BK or M7) in the CT or A204 cell lines; the RD-114 endogenous feline virus in the RD cell line; the feline leukemia virus (Theilen strain) in the FL 74 cell line; and either the gibbon ape lymphoma virus (GaLV) or woolly monkey fibrosarcoma virus (SSV-1) in NC-37 or A204 cells. Additional virus production will consist of the infectious and transforming strains of EBV.

On an annual basis, approximately 30,000 liters of virus-containing cell culture fluids will be produced which may result in 15,000-30,000 ml of concentrated product. The government reserves the right to reject offers limited to subsection, smaller elements, or portions of the overall work.

Contracting Officer: Clyde Williams
Viral Oncology & Field Studies
301-496-1781

RFP NO1-CN-85422-05

Title: *Evaluation of technology transfer in cancer patient management*

Deadline: *Approximately Sept. 1*

NCI is soliciting proposals for support in the performance of an evaluation study directed at assessing technology transfer in cancer patient management. The transfer of research results into patient care has become a central issue in the maintenance of standards in the delivery of health care in the United States. Assessment of quality care and technological progress has traditionally been conducted through peer review; however, there is a shortage of time for utilizing such personnel in the evaluation of technology transfer. The intent of this procurement is to further develop and apply a methodology to assess technology transfer in institutions treating cancer patients.

The primary objective is to develop and apply a methodology to assess the adaptation of new cancer technology in various types of institutions and hospitals treating cancer patients; for example, centers of established merit in clinical management, community-based hospitals, etc. Such factors as rate of adoption of the new technology and the reasons for the adoption or lack of adoption of new technology are important considerations. It is anticipated that the successful offeror will provide technical, conference management, and science assessment expertise in the performance of this project.

Contracting Officer: Shelby Buford
Cancer Control
301-427-7984

NCI CONTRACT AWARDS

Title: Breast cancer detection demonstration project, renewals

Contractors: Medical College of Wisconsin, $284,552; Virginia Mason Research Center, Seattle, $117,628; Univ. City Science Center, Philadelphia, $264,086, and Univ. of Kansas Medical Center, $268,614.

Title: NCI Diagnostic Reference Center

Contractor: Meloy Laboratories, $307,171.

Title: Immunotherapy of disseminated human cancer

Contractor: M.D. Anderson Hospital, $425,929.

Title: Definition of epidemiologic characteristics of pre- and post-menopausal breast cancer, continuation

Contractor: Duke Univ., $169,700.

Title: Effect of chemotherapy-induced endocrine alterations on stage II breast cancer

Contractor: Illinois Medical Center, $376,600.

Title: Research on oncogenic viruses, virus production and vaccine development, continuation

Contractor: Merck & Co., $200,000.

Title: Studies of high risk breast cancer families, continuation

Contractor: Michigan Cancer Foundation, $178,000.

Title: Isoproteins in normal, benign and malignant breast tissues

Contractor: Iowa State Univ., $217,400.

Title: Statistical support for the gastrointestinal tumor study group clinical trials program, continuation

Contractor: Frontier Science & Technology Research Foundation, Amherst, N.Y., $36,367.

Title: Breast Diagnosis: Quantitative imaging by ultrasound, continuation

Contractor: Mayo Foundation, $40,000.

Title: Cells involved in the immune response to tumors, continuations
Contractors: Brandeis Univ., $37,642; Harvard College, $73,664; and Sloan-Kettering Institute, $27,733.

Title: Studies and investigations on therapy of patients with stage II and stage III carcinoma of the breast, continuations
Contractors: Case Western Reserve Univ., $204,700, and Evanston Hospital, $99,400.

Title: Studies and investigations on methods to predict chemotherapy sensitivity, continuation
Contractor: Univ. of New Mexico, $204,000.

Title: Study of immunotherapy in the L_2C guinea pig leukemia, continuation
Contractor: M.D. Anderson Hospital, $51,217.

Title: Evaluation of the role of learned food aversions in the cancer patient
Contractor: Children's Orthopedic Hospital & Medical Center, Seattle, $129,939.

Title: Application of behavior modification techniques in the treatment of anorexia in the cancer patient
Contractor: Midwest Research Institute, $129,939.

Title: Study of natural occurrence of RNA tumor viruses, continuation
Contractor: Jackson Laboratory, $431,000.

Title: Processing laboratory for virus containing fluids, continuation
Contractor: Electro-Nucleonics Laboratories, $559,247.

Title: Study of human sarcoma and their possible viral etiology, continuation
Contractor: St. Joseph's Hospital, Tampa, $66,089.

Title: Adjuvant chemotherapy trial in head and neck squamous carcinoma
Contractors: Northern California Cancer Program, $575,566; Univ. of South Florida, $218,943; Univ. of Texas Medical Branch, $306,413; Univ. of Cincinnati, $140,722; Univ. of Maryland, $266,594; Memorial Hospital for Cancer & Allied Diseases, New York, $263,688; Univ. of Michigan, $435,702, and American College of Radiology, $675,353.

Title: Microcirculation/molecular transport in mammary cancer, continuation
Contractor: Univ. of Arizona, $99,000.

Title: Prediction of hormone dependency in human breast cancer, continuation
Contractor: Univ. of Chicago, $100,000.

Title: Differentiation of mammary epithelial cells, continuation
Contractor: Washington State Univ., $55,000.

Title: Biological characterization studies of animal mammary tumors, continuation
Contractor: Mason Research Institute, $170,000.

Title: Studies of immune stimulants in patients receiving radiation therapy
Contractor: Emory Univ., $122,981.

Title: Further development and application of the Norton-Simon model for predicting tumor response
Contractor: Mount Sinai School of Medicine, $99,659.

Title: Development of NCP program activities directed at hard-to-reach audiences
Contractor: Small Business Administration, $78,507.

Title: Evaluation of levamisole as a therapeutic adjunct in squamous cell carcinoma of the head and neck, continuation
Contractor: Sloan Kettering Institute, $82,772.

Title: Studies of the viral involvement in canine mammary sarcoma, continuation
Contractor: Pfizer Inc., $180,000.

Title: Study of the role of humoral and cellular immunity in determining outcome of herpesvirus Saimiri infection, continuation
Contractor: Tulane Univ., $34,000.

Title: Research on immunological measurements as a guide to behavior and viral etiology of breast cancer, continuation
Contractor: New York Medical College, $168,000.

Title: Study of immunobiologic responses of the cat to feline oncornaviruses, continuation
Contractor: Ohio State Univ., $45,800.

Title: Japan-Hawaii cancer study, continuation
Contractor: Kuakini Medical Center, Honolulu, $329,553.

Title: Research on transcriptional reguation of eukaryotic gene sequences, continuation
Contractor: Columbia Univ., $34,896.

Title: Holding facility for small laboratory animals, continuation
Contractor: Litton Bionetics, $250,905.

Title: Influence of animal handling techniques upon their physiological state
Contractor: Pacific Northwest Research Foundation, Seattle, $15,000.

Title: Studies of usefulness of carcinoembryonic antigen in the diagnosis of bowel carcinoma, continuation
Contractor: Mayo Foundation, $59,000.

Title: Detection of antigen-antibody complexes in sera of patients with breast cancer
Contractor: Univ. of Chicago, $155,000.

Title: Registry of tumors in lower animals, continuation
Contractor: Smithsonian Institution, $143,112.

Title: Development of contrast agents for use in clinical ultrasonic diagnosis
Contractor: Univ. of Kansas Medical Center, $493,060.

Title: Standard protocol for evaluation of imaging techniques in cancer diagnosis, continuation
Contractor: Bolt, Beranek & Newman Inc., Cambridge, Mass., $74,612.

Title: Use of screening techniques for blood in the stool as a means of detecting early cancer of the bowel, continuation
Contractor: Univ. of Minnesota, $555,000.

Title: Development of specific immunoglobulines labelled with gamma-emitting radioisotopes for external detection of tumors, continuation
Contractor: Univ of Kentucky Medical Center, $186,741.

Title: Search for genetic material in cancer and studies on mechanisms of oncogenesis, continuation
Contractor: St. Louis Univ. School of Medicine, $499,999.

Title: Search for RNA virus specific genetic material, continuation
Contractor: St. Louis Univ. School of Medicine, $80,000.

Title: Pharmacological studies of antitumor agents
Contractor: Southern Research Institute, $891,860.

Title: Pharmacology of combinations of potential antileukemia drug
Contractor: Southern Research Institute, $337,290.

Title: Processing of clinical patient research data for BTSG, continuation
Contractor: Control Data Corp., $50,000.

Title: Hybridization techniques to obtain functional T-cells
Contractor: Farber Cancer Center, $90,131.

Title: Immune status and effects of immunostimulants in patients receiving localized radiation therapy, continuation
Contractor: Univ. of California (San Francisco), $101,577.

Title: Diagnostic application of human tumor or organ-associated antigens, continuation
Contractor: Sloan-Kettering Institute, $23,109.

Title: HL-A typing and matching for platelet and leukocyte transfusions, continuation
Contractor: UCLA, $398,057.

Title: Specific and non-specific immunotherapy as an adjunct to chemotherapy in skeletal and soft tissue sarcomas, continuation
Contractor: UCLA, $108,586.

Title: Evaluation of immunotherapy with tumor preparations in man (active specific immunotherapy)
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